

# The State of the Sierra Nevada's Forests



Report released by the Sierra Nevada Conservancy on September 22, 2014



***Many Sierra Nevada forests are unhealthy and susceptible to disease and intense fire.***

## EXECUTIVE SUMMARY

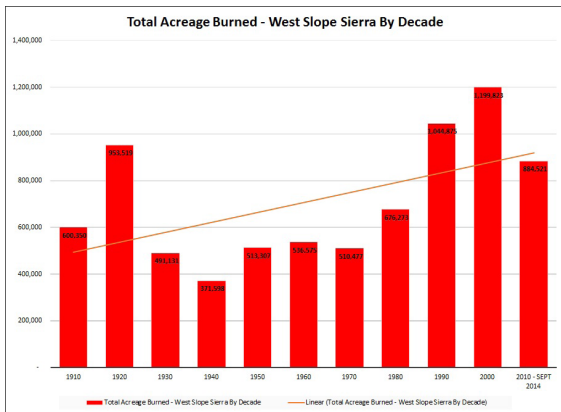
There is a growing understanding that many Sierra Nevada forests are not healthy and that overgrown forests are susceptible to disease and intense wildfire. There is likewise broad consensus that science-based ecological restoration of our Sierra Nevada forests must be dramatically increased in order stem the tide of large, uncharacteristic wildfires. These wildfires threaten the very lifeblood of California - the forested watersheds of the Sierra Nevada.

The State of Sierra Nevada's Forests Report identifies the wide range of benefits provided by our Sierra Nevada forests and watersheds that are at risk:

- The Region is the origin of 60% of California's developed water supply.
- These watersheds are the primary source of fresh water flowing into the Sacramento-San Joaquin Delta, California's water "hub."
- The forests of the Sierra Nevada store massive amounts of carbon, assisting in the state's efforts to combat climate change.
- The forests and watersheds provide crucial habitat to hundreds of species.
- The area provides world class recreational opportunities enjoyed by millions from around the world.
- The Region is a major producer of wood products and hydro-electric power.

Key findings of this report include the following:

- ✓ The United States Forest Service Region 5 estimates that between six and nine million acres of lands for which they have management responsibility are in need of restoration. In order to return these lands to ecological health, a two to three times increase in the pace and scale of ecological restoration must occur.
- ✓ The amount of area consumed by fire in the Sierra Nevada continues to increase. More land has burned in the first four-and-a-half-years of this decade than seven entire decades in the past.
- ✓ Between 1984 and 2010, there was a significant increase in the number of acres within a forest fire burning at high-intensity, from an average of 20% in mid-1980's to over 30% by 2010.
- ✓ High-intensity burn areas can experience runoff and erosion rates five to ten times greater than low- or moderate-intensity burn areas. The sediment that is carried in the runoff not only degrades water quality and damages infrastructure, it fills reservoirs, reducing storage capacity.



**Wildfires in California have become larger and more extreme over the last two decades and many predict that this trend will continue to increase unless the pace and scale of forest restoration dramatically increases.**

- ◆ In order to adequately handle the pace and scale of needed restoration, wood and biomass processing infrastructure in the Sierra Nevada must be enhanced.
- ◆ Acknowledging the important ecological role of fire and increasing the use of prescribed and managed fire as a forest restoration tool is necessary.



Giant Sequoias are the largest living things on Earth and only grow in the Sierra Nevada.

✓ The 2013 Rim Fire, the largest fire in the recorded history of the Sierra Nevada, burned 257,000 acres, almost 40% of which was at high intensity. Estimates are that that fire produced the same amount of greenhouse gas emissions that 2.3 million vehicles produce in a year.

This report identifies the following impediments to increasing pace and scale, and potential solutions to these challenges:

- ◆ Funding currently available is inadequate in relation to the need for forest restoration, especially for critical projects that don't "pay for themselves" with removed material.
- ◆ Improving the efficiency of lengthy and complex planning processes and encouraging efforts to address larger landscape restoration projects in a collaborative manner must occur.

Failure to understand the urgency of the situation in the Sierra Nevada will have devastating impacts on California's environment and economy. The potential for more megafires like the Rim Fire is high and the trend of larger, more intense fires is clear, with the current drought and ongoing temperature increases making the situation all the more urgent.

This report provides a framework through which this issue can be addressed. It will require a renewed commitment at the state, federal and local levels. The alternative of the status quo is simply not acceptable.

**According to the USFS, "Only an environmental restoration program of unprecedented scale can alter the direction of current trends."**

**Urgent action is needed in the Sierra Nevada to avoid devastating impacts on California's environment and economy.**

The Sierra Nevada Conservancy is a state agency that carries out a mission of protecting the environment and economy in a complementary fashion across 25 million acres, one-quarter of the state. To learn more, please visit the Sierra Nevada Conservancy Web site.



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